

WHAT IS CLAIMED IS:

1. A vehicle controller which performs overheat detection on a resistor of an electric vehicle that consumes power generated at a time of braking as Joule heat of the resistor, the vehicle controller comprising:

current detecting means for detecting a current value of a current flowing through the resistor;

voltage detecting means for detecting a voltage value of a voltage generated between both ends of the resistor;

resistance value calculating means for calculating a resistance value of the resistor based on the current value and the voltage value; and

overheat detecting means for comparing the resistance value calculated by the resistance value calculating means and a resistance value at an allowable temperature of the resistor, and judging that overheat is detected from the resistor when the resistance value calculated by the resistance value calculating means is larger than the resistance value at an allowable temperature of the resistor.

2. A vehicle controller according to claim 1, wherein:
the resistor is arranged in series to a switching element for controlling the Joule heat; and

a total voltage value of the voltage generated between both ends of the resistor and a voltage generated between both ends of

the switching element is detected to be equivalent to the voltage value of the voltage generated between both ends of the resistor.

3. A vehicle controller according to claim 1, wherein the overheat detecting means includes:

an initial resistance value calculating portion for calculating an initial resistance value of the resistor based on an initial current value of a current flowing through the resistor and an initial voltage value of a voltage generated between both ends of the resistor; and

an allowable temperature resistance value calculating portion for calculating a resistance value of the resistor at an allowable temperature using the initial resistance value.

4. A vehicle controller according to claim 1, further comprising waveform shaping means for obtaining a shaped waveform current that indicates a constant value from an envelope of an intermittent current that flows through the resistor and is detected by the current detecting means, and outputting a value of the shaped waveform current to the resistance value calculating means as the current value, the waveform shaping means being connected between the current detecting means and the resistance value calculating means.